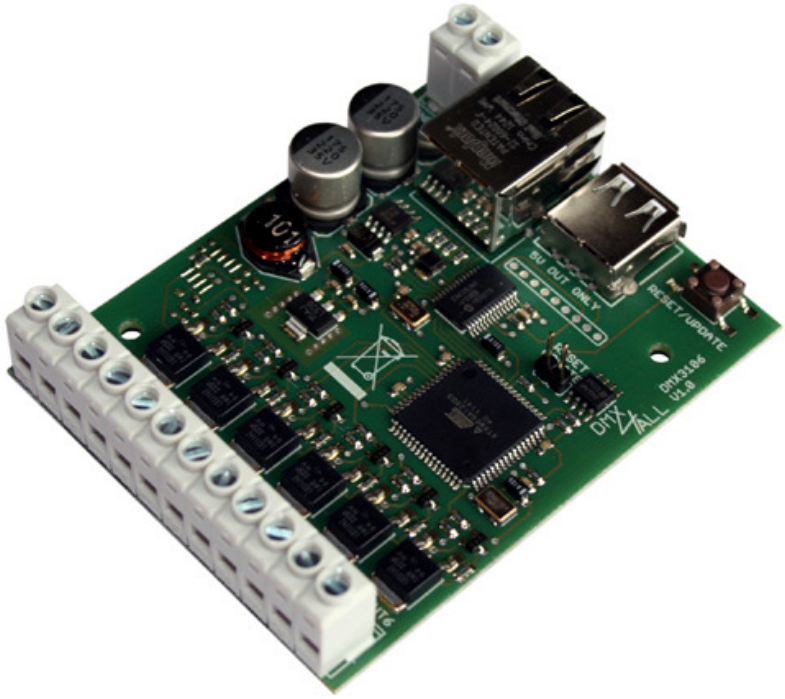
ArtNet-LED-Dimmer 6

User Manual



ART NET ETHERNET

DMX4ALL®

Art-Net™ Designed by and Copyright Artistic Licence Holdings Ltd.

For the described range of functions the firmware version 1.1 or higher is needed (Execute the Firmware-Update see page 18).

Description

The **ArtNet-LED Dimmer 6** is a compact LED dimmer controlling 6 separate LED outputs. These can be used for RGB / RGB+W or for single stripes. The LEDs connection is done with screw connectors. With a RJ45 connection the access to the Ethernet (ArtNet-Network) takes place.

Additional the **ArtNet-LED Dimmer 6** has an USB-connection which allows connecting external devices e.g. a WLAN-bridge, a power supply with 5V/500mA.

A user-friendly configuration with a web browser enables a fast and uncomplicated setting of all parameters.

Furthermore the **ArtNet-LED-Dimmer 6** has 10 user-defined color-change/ programs. These can be generated via web browser or with the Android App „DMX4ALL Remote“.

Technical Data

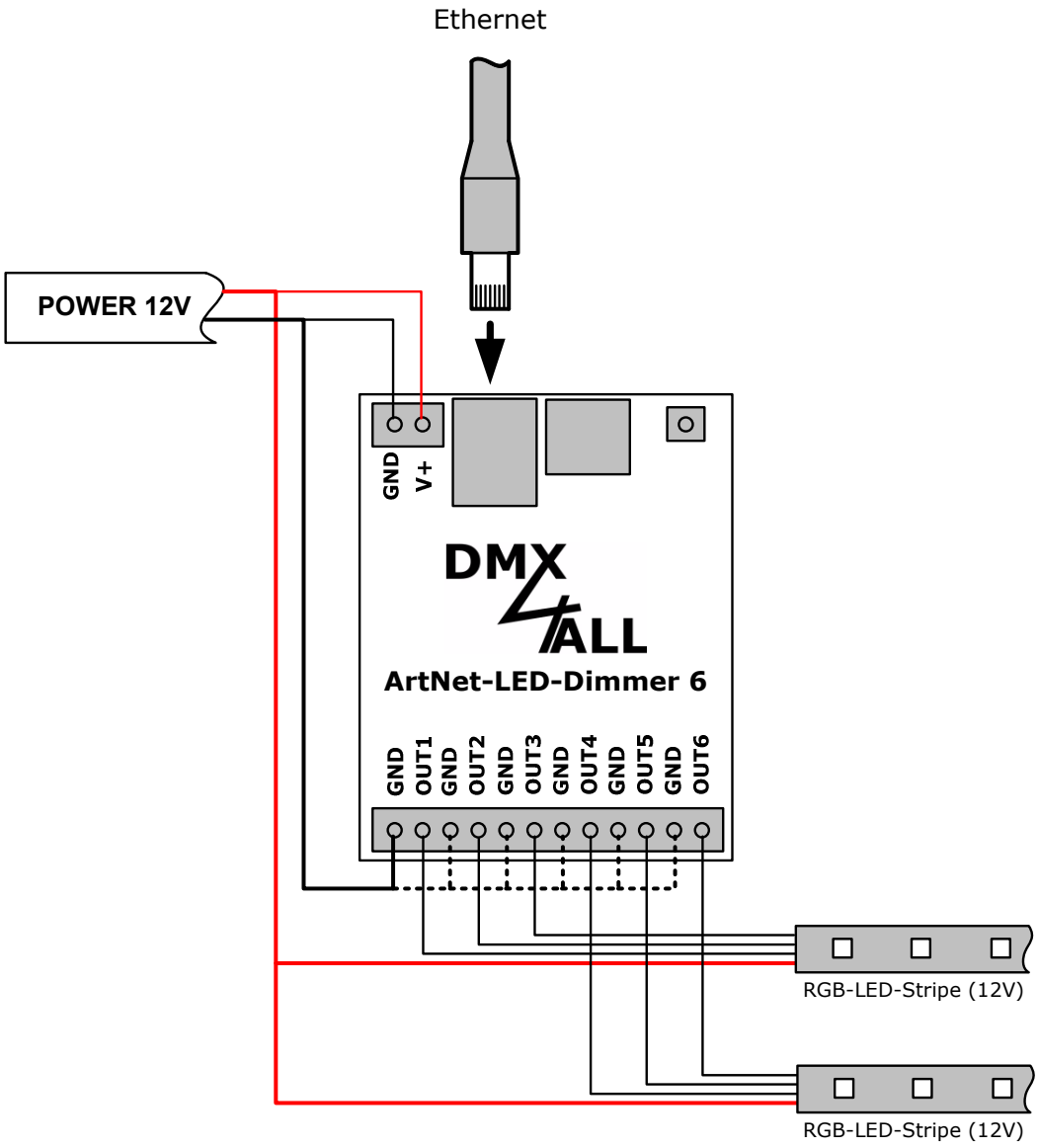
Power supply:	12-24V DC
LED-Voltage:	12-24V DC (no AC voltage !)
Ethernet:	RJ45
LED-Connection:	6x max. per 10A / commnon Anode (+) 60A in sum (with all connected GND-terminals) 6 PWM-Signals in 256 steps
PWM-Frequency:	250 Hz / 500 Hz / 1000 Hz / 2000 Hz
USB-Connection:	5V/500mA for power supply external devices (E.g. WLAN-Bridge)
Dimensions (LxBxH):	64,2 x 82 x 20 mm

Delivery

1x ArtNet-LED-Dimmer 6
1x 1m RJ45 Network cable 1:1
1x User manual (brief instruction)

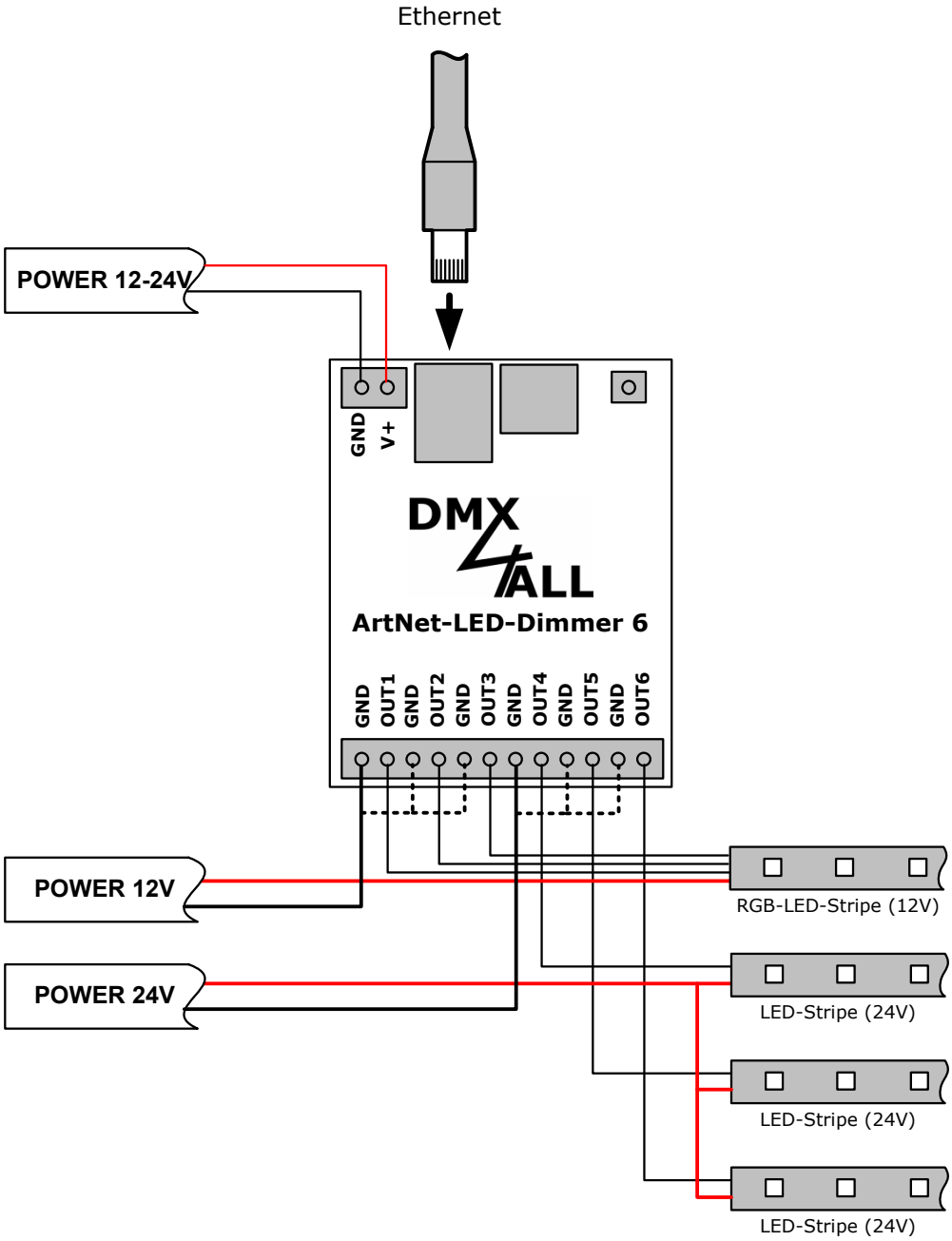
Examples for Connections

Example with 2 separate controllable RGB-LED-Stripes and a central power supply:



---------- Connections according to the needed power for the LED-Stripes directly wired from power supply !

Example with a RGB-LED-Stripe (12V) and 3 single color LED-Stripes (24V) with separated power supply:



---------- Connections according to the needed power for the LED-Stripes directly wired from power supply !

LED-Display

LED green

The green LED lights up if no Ethernet connection is available and lights up permanent if an Ethernet connection exists.

LED yellow

The yellow LED lights up as soon as data are received.

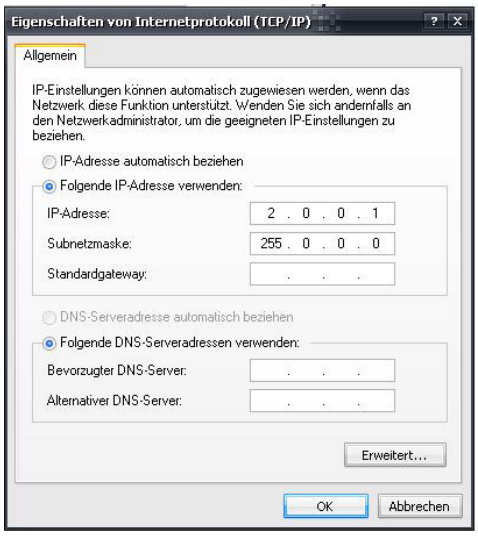
Configuration

The Configuration of the **ArtNet-LED Dimmer 6** occurs with a web-interface which can be called with any web browser.

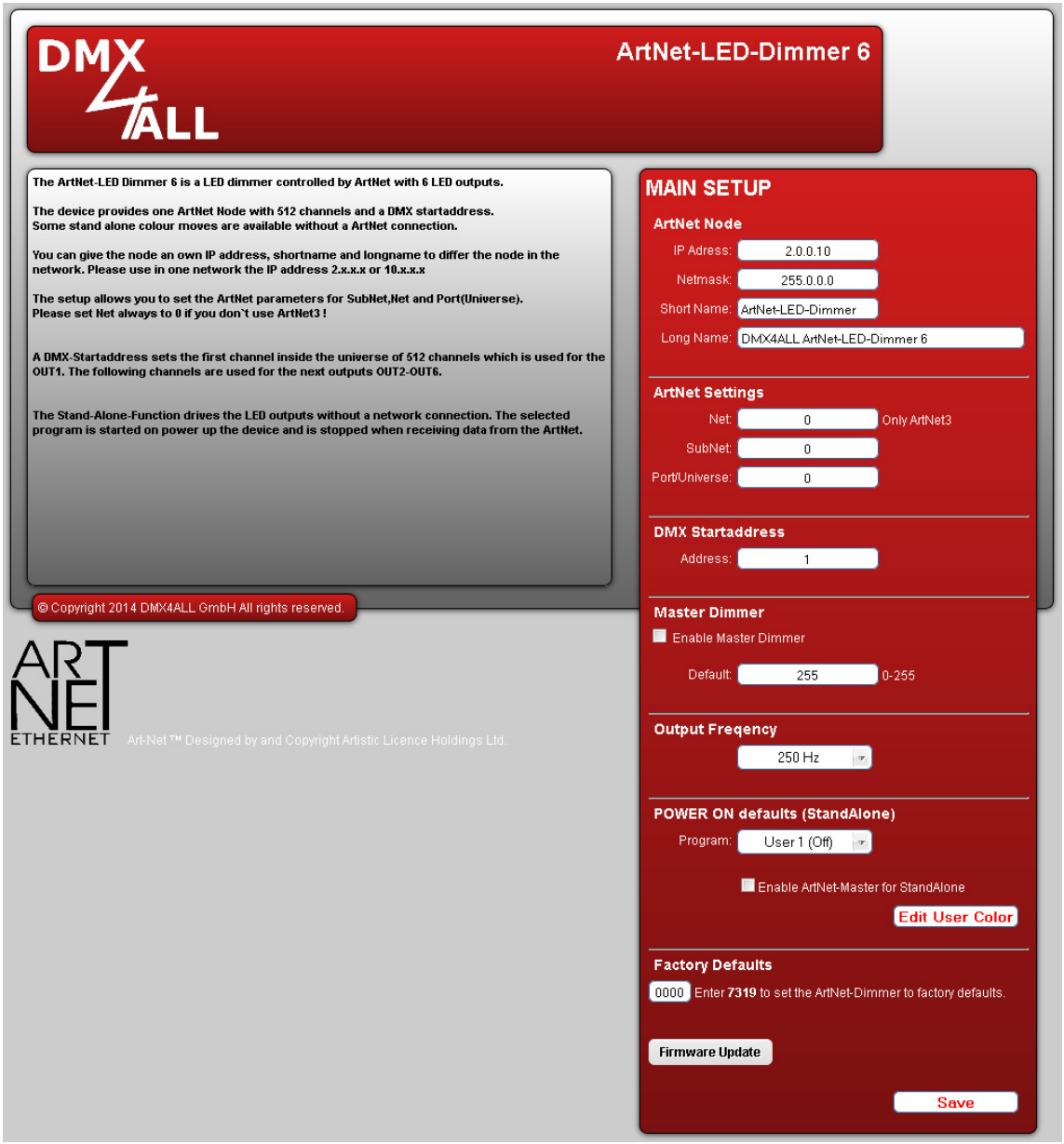
The assigned **IP-address 2.0.0.10** by delivery will be used for the web-interface as well as for the ArtNet.

The network settings of the PC must be configured to the **IP-address 2.0.0.1** and the **subnet mask** to **255.0.0.0**.

Please quote the ArtNet-specifications for further details.



Please call the IP 2.0.0.10 in the address bar of the web browser for getting the following configuration page:



⚠ Each node needs an own **IP-address**, so the assignment in the network occurs clearly. According to the ArtNet-specifications please use the IP-addresses 2.x.x.x or 10.x.x.x .

The **Subnetmask** is 255.0.0.0 according to the ArtNet-specifications.

Other IP addresses are possible too, e.g. 192.168.1.10.
In this case the Netmask must be changed to 255.255.255.0 !

For an easier identification you can assign each node with any names.

The **Short-name** is limited to 18 signs and the **Long-name** to 64 signs.

In the ArtNet settings the adjustment for the **Subnet**, **Net** and **Port** (Universe) is possible.

The **DMX-Starting address** specifies the channel in the DMX-Universe at which the LED-outputs are responded. Thereby the DMX-Starting address corresponds to the output 1 and the following addresses correspond to the outputs 2-4.

The **Master Dimmer** can be activated if all outputs should be dim via another ArtNet-Channel. This is possible during the StandAlone-Operation as well as via the ArtNet-Operation. Thereby the Master-Channel is the first channel.
An adjustable **Default** value shows which value is identified after switch on the dimmer.

The PWM-Output frequency from the LED-driver is adjustable under **Output Frequency**. You can select between the values 250Hz / 500 Hz / 1000Hz and 2000Hz.

Additional **POWER ON defaults (StandAlone)** allows operating without connecting an ArtNet device. The adjusted program will be run after switching on the device.
If data receive, from an ArtNet-controlling device for an output, greater than 0 the program will automatically finished and the outputs get the settings coming from ArtNet.

Enable ArtNet-Master for StandAlone is for outputting the StandAlone-Programs. The outputted values are transmitted via ArtNet to the adjusted Net/SubNet/Universe from at the assigned start address via Broadcast. So it is possible to run several ArtNet-LED-Dimmer synchronously.

An user-defined color-gradient can be used under **User Color**. The **User Color Setup** is described on the following pages.

The **Factory Settings** will be restored with entering the number 7319.

SAVE restored the configuration respectively restored the Factory settings.

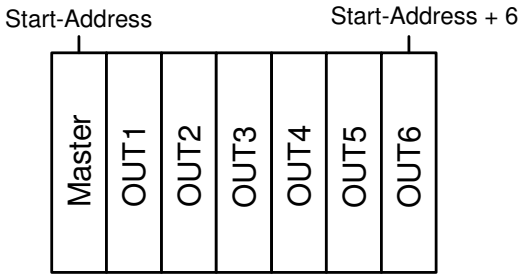
Using other IP-addresses

The ArtNet-LED-Dimmer 6 works with any IP-address.
You can use also the standard IP-address 192.168.1.x for your network.
In this case, please set up the Netmask to 255.255.255.0 .

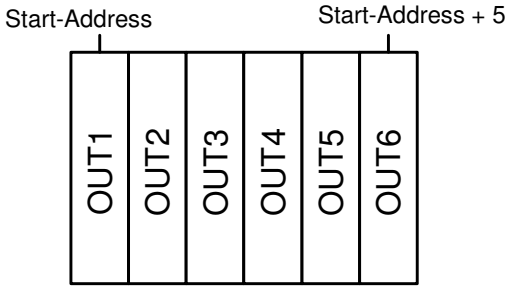
Master Dimmer

The **ArtNet-LED-Dimmer 6** supports a Master-Dimmer to dim all outputs at the same time. This Master-Dimmer must be activated in the Web-configuration.

The ArtNet channel given by the Start-address is used for the Master-Dimmer channel. The assignment occurs as follows:



Is no Master-Dimmer activated the assignment is as follows :



The Master-Dimmer can be used also to dim the expressed Stand-Alone-Program or to dim the user-defined color-change.

The Default-value shows which value is used for running the Master-Dimmer after switching on the device.

It is also possible to change the Master-Dimmer by ArtNet during the Stand-Alone-Program is running. In this case the output values must be hold to 0 !
If an output value greater than 0 will be received the reproduction ends and the Live-Output of the received values starts.

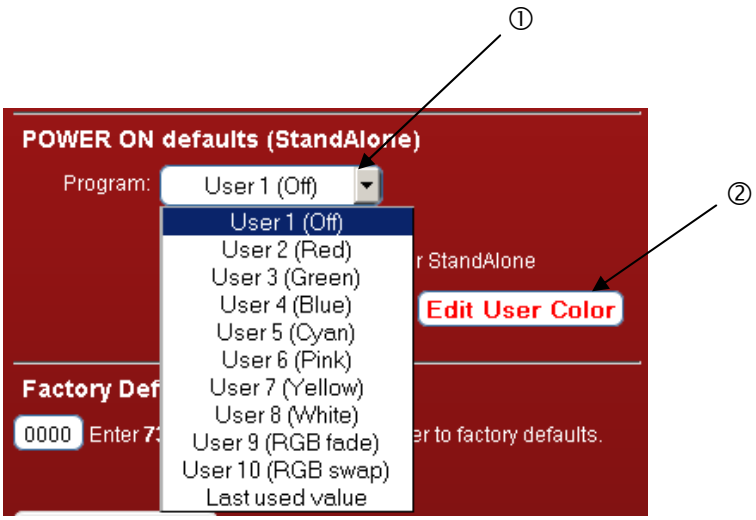
User-defined color changes / programs

The **ArtNet-LED-Dimmer 6** has 10 user-defined color changes / programs (User Color) which allow an open defined color-reproduction up to 16 steps.

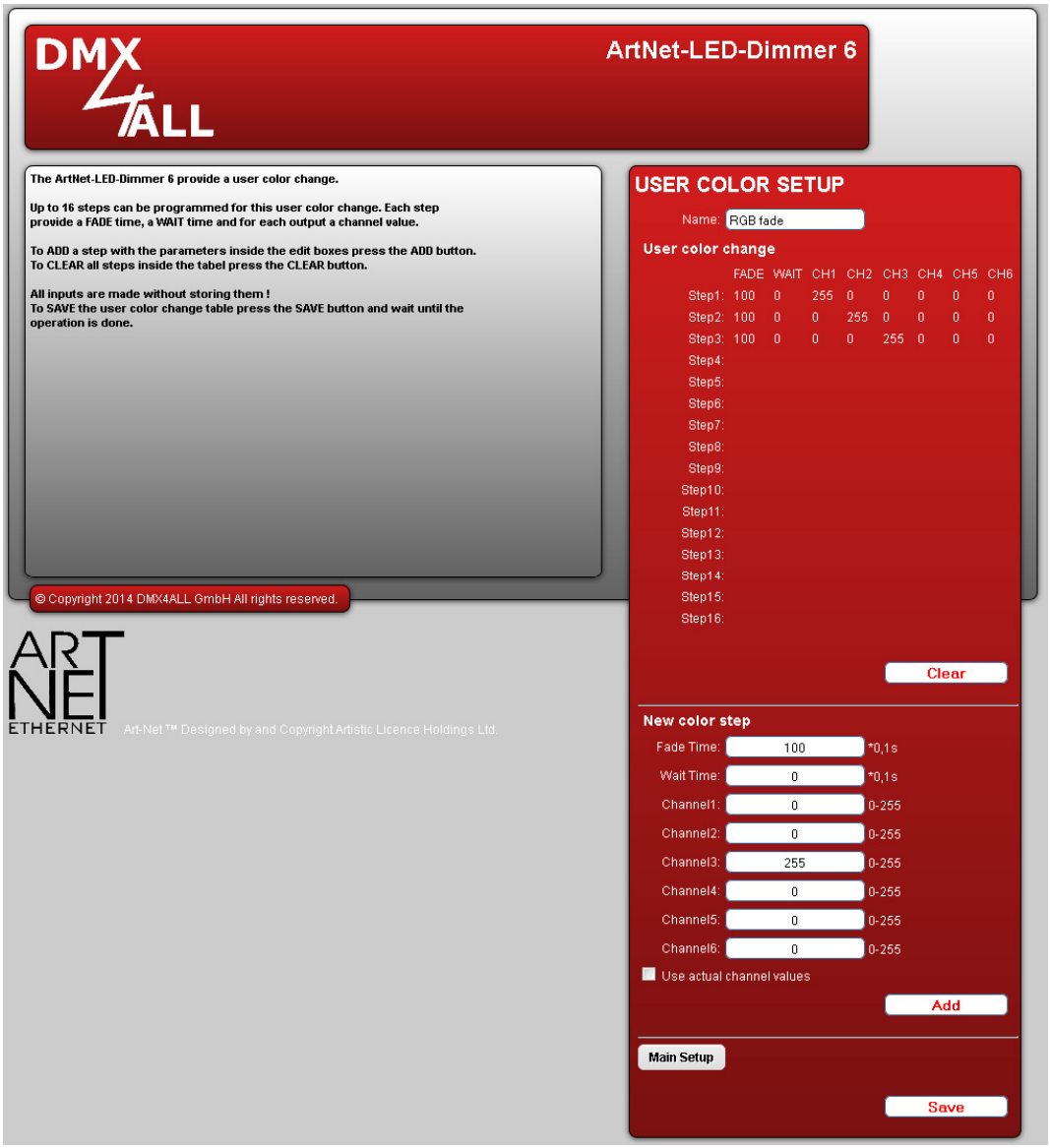
These programs are predefined for operating with RGB-LED-Stripes in the delivery conditions. All programs (User 1 – User 10) can be editing free

Editing via Web-Browser

For editing a program please select this program under the main menu ① and then call *Edit User Color* ②.



By clicking *User Color Setup* within the main menu from the Web-interface the dialog USER COLOR SETUP for editing the user-defined color-change / programs is shown:



Entering *User color change* a table of the current 16 steps is shown (Step 1 up to Step 16). If there are not used steps there is no value in the table.

Each step consists of a Fade Time, a Wait Time and 6 brightness-values for the outputs (CH1 - CH6).

Naming the user-defined programs

For a simply recognition of the created program this will be named. This name will be used for calling within the Remote-App.

Deleting the user-defined programs

By clicking *Clear* the whole table will be deleted.

Creating Steps

With *New color Step* you can enter the values for a new step.

The *Fade Time* is divided in 0,1s units between 0 and 65000. A value of 10 corresponds to 1 second and a value of 600 corresponds to 1 minute.

The *Wait Time* is just the same in 0,1s units between 0 and 65000. A value of 10 corresponds to 1 second and a value of 600 corresponds to 1 minute.

In the fields *Channel 1* up to *Channel 6* the brightness value 0-255 for the outputs 1 up to 6 will be entered. A value to 255 corresponds to 100%.

Click *Add* and the step after the last used step will be attached and adopted into the scale.

By activating the selection box *Use actual channel values* the current brightness values which are set up will be adopted, not the entry field's brightness values. Thus it is possible to set up any color via App and to adopt this one as a step in the user-defined color change. The *Fade Time* and *Wait Time* must be specified furthermore.

The table has to be stored with *Save*. If *Save* will be not executed the settings will be not adopted permanent and after turning off the ArtNet-LED-Dimmer 6 all settings will be lost.

Saving the user-defined color change

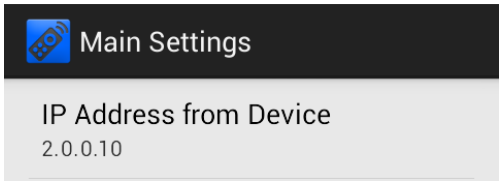
Select *Save* for storing the scale in the ArtNet-LED-Dimmer 6. After switching on the device the color change will be replayed as long as a set up via Ethernet for example via App takes place.

Executing programs / editing via Android App

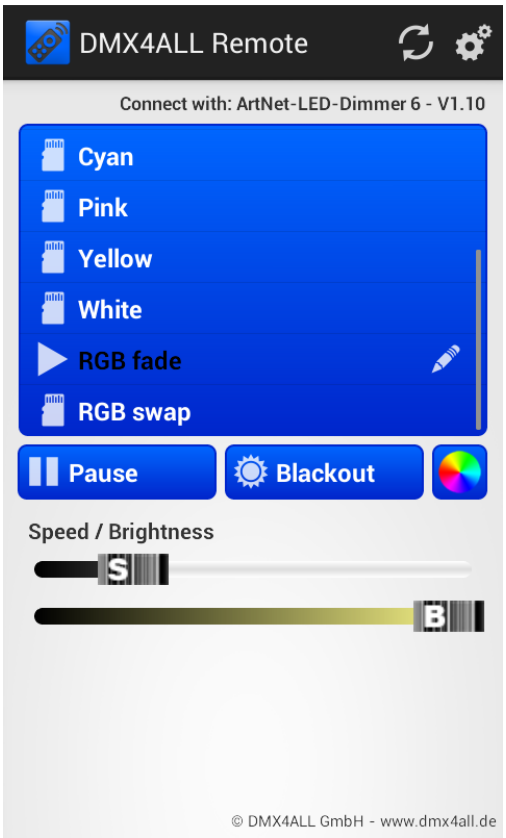
The user defined color changes / programs the ArtNet-LED-Dimmer 6 can be called / editing via the Androis App DMX4ALL Remote.

The App ***DMX4ALL Remote*** is free available in the Google Play-Store and can be installed on Smartphones or tablets with Android 4.0 or higher.

After starting the App for the first time the ArtNet-LED-Dimmer 6 IP must be declared in the main settings .



After leaving the settings the programs out of the ArtNet-LED-Dimmer 6 will be load and shown in the list.



By tipping a programs name within the list the according program will be run via the ArtNet-LED-Dimmer. The executed program is marked with a symbol ►.

By tipping

the ongoing program will be stopped.

By tipping

a stopped program will be replayed furthermore.

Tipping the

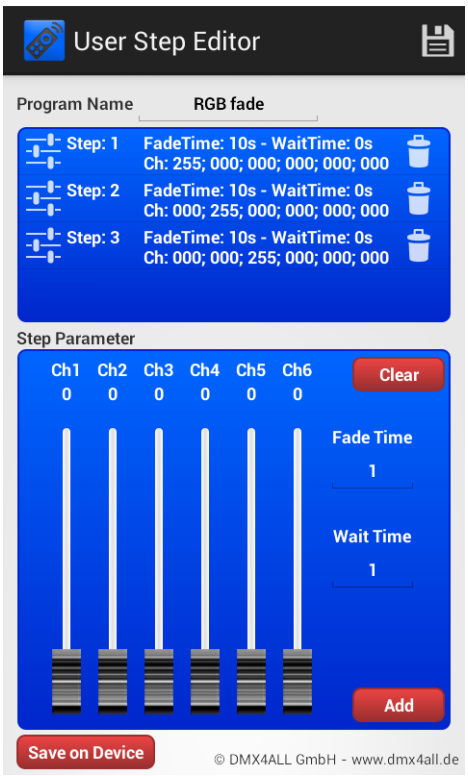
switch the outputs will be switched off or on. If the Blackout-function is activated this button is displayed in a red color.

By tipping
the RGB Channel Control opens. Hereby the ArtNet-LED-Dimmer can be used live.

For adjusting the playback speed and brightness two sliders (Speed, Brightness) exist.

Editing programs

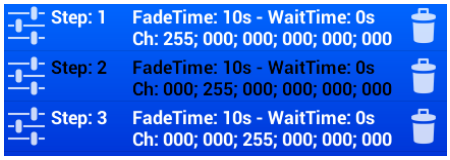
For editing a program the programs name must be pushed for al longer time (ca. 1 second). The User Step Editor opens:



A list with all single steps will be shown. In each entry the Fade Time, Wait Time and the channel value is shown.

Above the list the programs name is shown, which is editable too.

Short tipping to an entry select this and the values will be displayed the area below (Step parameter) as well as transmitted to the ArtNet-LED-Dimmer.
The entry is marked darkly:



Long holding an entry deletes the selected step.

The area **Step Parameter** displayed the adjusted values. Via the sliders the channel values will be adjusted and transmitted to the ArtNet-LED-Dimmer. So, the adjusted light picture can be reviewed.

The **Fade Time** and **Wait Time** define the wait time and fade time in seconds.

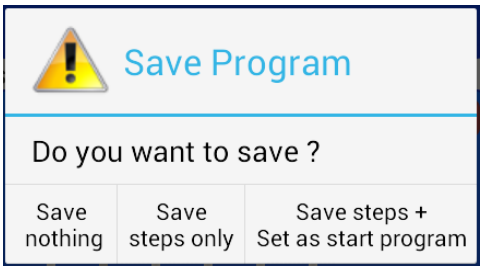
Add adds a step with the current value, which are adjusted under the Step Parameters, to the end of the list.

Replace replaces the selected entry with the current Step Parameter values.

Clear deletes all entries in the list.

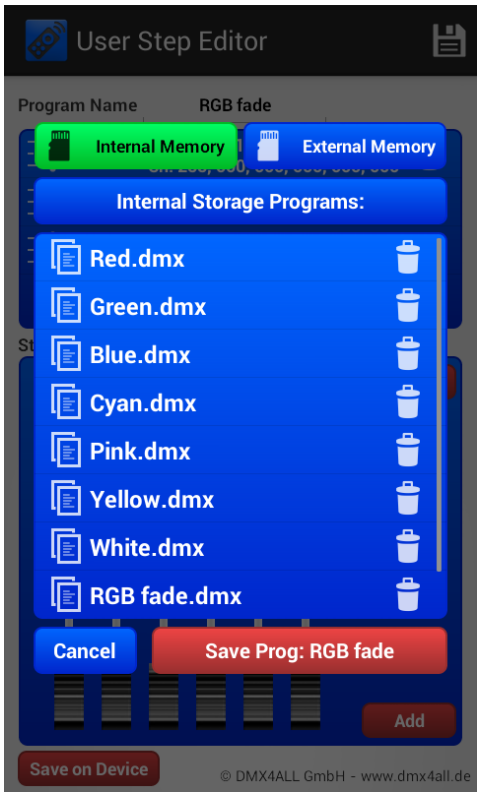
Save on Device stores the created program to the ArtNet-LED-Dimmer.

A request appears if the program should be stored (*Save Steps only*) or whether the program should be stored and defined as start-program (*Save Steps + Set as start program*).



Export / Import programs

It is possible to export or import an created program as file on a Smartphone / Tablet with .



The internal memory as well as an external memory by a SD-card can be used for the export / import.

By tipping **Internal Memory** or **External Memory** the storage location will be selected.

The shown files (.dmx) can be load with **tipping** and deleted with **long holding**.

Storing the current program occurs with tipping **Save Prog**. The files name will be assigned automatically.

Live-Controlling via App

The ArtNet-LED-Dimmer 6 can be controlled live via an App.

Android Smartphones / Tablets

- **Light Remote LITE** **(with costs)**

  App for an easy remote control for Art-Net-Installations integrated a user-friendly design, an attractive arranged surface with easy possibilities for color settings.

  ⇨ Advised for installations with one ArtNet-LED-Dimmer

- **Light Remote** **(with costs)**

  App for an easy remote control for Art-Net-Installations integrated a user-friendly design, an attractive arranged surface with easy possibilities for color settings.

  ⇨ Advised for installations with several ArtNet-LED-Dimmer

iOS Smartphones / Tablets

- **LED Remote** **(with costs)**

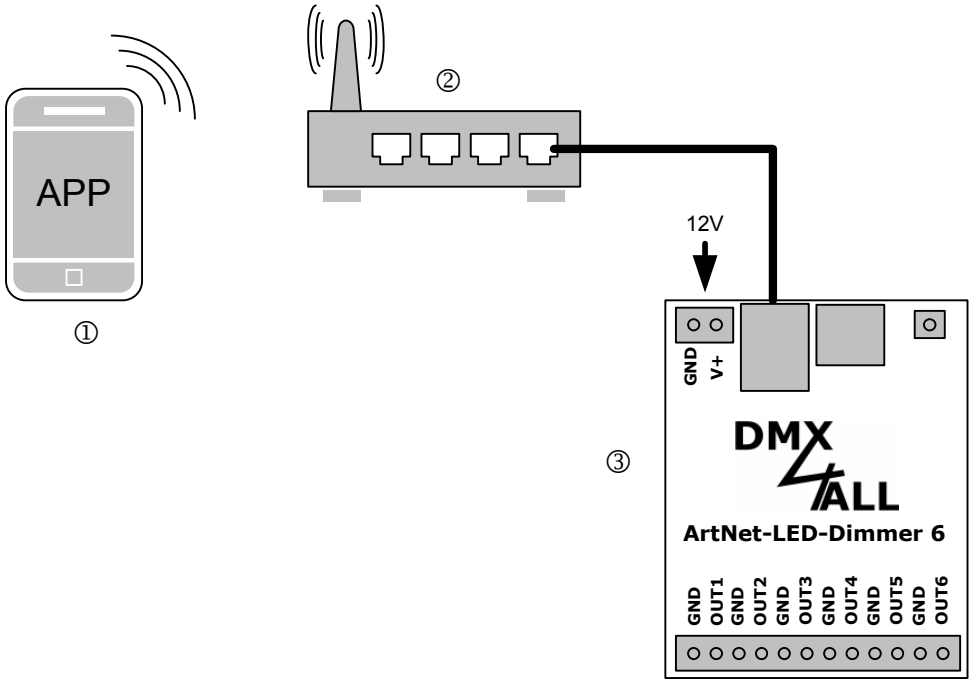
  App for an easy remote control for Art-Net-Installations integrated a user-friendly design, an attractive arranged surface with easy possibilities for color settings.

  ⇨ Advised for installations with several ArtNet-LED-Dimmer

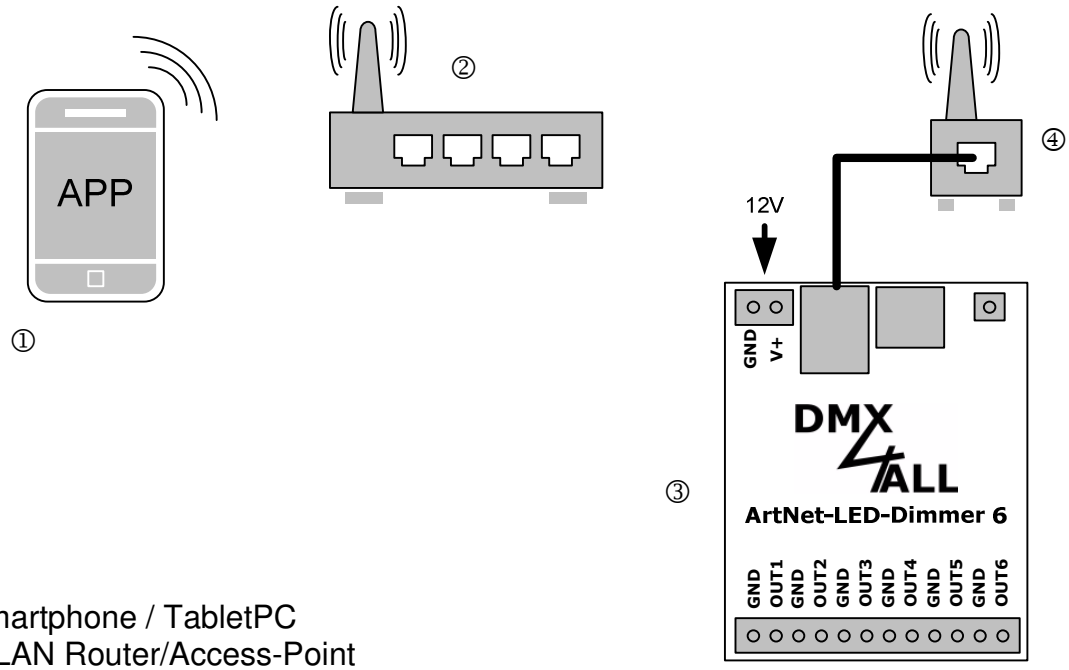
Operating in WLAN

The **ArtNet-LED-Dimmer 6** can be operated with a WLAN Router/Access-Point or with a WLAN-bridge.

Operating with WLAN Router/Access-Point



Operating with WLAN- Bridge



① Smartphone / TabletPC
② WLAN Router/Access-Point
③ ArtNet-LED-Dimmer 6
④ WLAN-Bridge e.g. TL-WR702N

Factory Reset without Web-Interface

The **ArtNet-LED Dimmer 6** can be reset into the delivery conditions with the Reset-button within the device.

Please proceed als follows:

- Turn off the device
- Push button and hold
- Turn on the device
- The yellow LED lights up
- Release button
- Push the button and hold again
- Green and yellow LED lights up alternately ca. 10 seconds.
- Release the button meanwhile
- The reset will be executed and the LEDs lights up 3x simultaneously to the confirmation.

Alternatively you can generate the delivery conditions via the Web browser:
- Open the Main Setup within the web browser
- Enter the shown Code „7319“ in the Factory defaults
- Click klicken
- Then, please wait 20 seconds at least

Executing Update

The **ArtNet-LED Dimmer 6** has an Update-function which allows transferring prospective Firmware versions.

Please proceed als follows:

- Turn off the device
- Push button and hold
- Turn on the device
- Yellow LED lights up
- Release button
- Generate Network-connection to PC
- Start Update-Software **DMX4ALL LAN-Updater**
- Select ArtNet-LED-Dimmer 6 from list
- Click *Firmware-Update*
- Select Firmware-Data (.bin) and certify
- Please wait until Update has finished

Equipment

RGB-LED-Stripe 5m

LED-Stripe white

Power supply 12V / 5A

Risk-Notes

You purchased a technical product. Conformable to the best available technology the following risks should not excluded:

Failure risk: The device can drop out partially or completely at any time without warning. To reduce the probability of a failure a redundant system structure is necessary.

Initiation risk: For the installation of the board, the board must be connected and adjusted to foreign components according to the device paperwork. This work can only be done by qualified personnel, which read the full device paperwork and understand it.

Operating risk: The Change or the operation under special conditions of the installed systems/components could as well as hidden defects cause to breakdown within the running time.

Misusage risk: Any nonstandard use could cause incalculable risks and is not allowed.

It is not allowed to use the device in an operation, where the safety of persons depends on this device.

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